

KEEPING PACE

PITTSBURGH ATARI COMPUTER ENTHUSIASTS

DECEMBER, 1987

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Holiday Newsletter

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NOTICE

Keeping PACE is the official publication of the Pittsburgh Atari Computer Enthusiasts. If you enjoy Keeping PACE and would like to receive it regularly you must do one of two things:

1) Become a dues paying member by filling out the form in back of this issue and by sending a check or money order to PACE at the address on the form in the amount of \$20.00 (per yr./family). Membership is open to individuals and families who are interested in using or programming Atari personal computers. Membership includes the subscription to this monthly newsletter, access to the club's disk library and to all club functions and discounts.

2) If you are an Atari User Group you will continue to receive Keeping PACE if we receive your newsletter on an exchange basis at the address on the form. Also we are interested in exchanging Disk Libraries of PUBLIC DOMAIN PROGRAMS.

NEWSLETTER ARTICLES:

Please submit all articles on disk to any of the PACE Officers. Articles may also be uploaded directly to the Editor (412)-941-4107 or the P.A.C.E. Bulletin Board (412) 963-1355.

PACE accepts articles for publication in a variety of formats. Articles may be submitted anytime but will probably not make that month's newsletter if submitted less than two weeks before the regular meeting date. Text files on single sided ST disk and uploads to the PACE BBS are the preferred means of submission.

Due to limitations placed on the use of the meeting room, any retailer wishing to sell products at a P.A.C.E. meeting must register with the President or Vice President one month prior to the meeting. Stipulation for such sales will be explained and will be adhered to. PACE reserves the right to limit space to retailers and others at all meetings.

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PRESIDENT'S REPORT

by Lanny Shoup

Hello again...some of you may have noticed that my article last month was relegated to the last page of the newsletter. This shows the dedication of our newsletter editor to getting the newsletter out on time...it waits for no man. This month I'm on time and trying to set a good example for all my board elves.

Remember our open house this month. This will be held on December 14, 1987, in place of our regular meeting. Our local retailers were invited, and we also hope to have a musical demo for you. And don't forget the Chinese auction! From the comments I've heard, this will be a big attraction at the open house. If you are selling at the auction this means extra money for Christmas gifts. If you are buying this means excellent buys for Christmas gifts...either way you're a winner at this auction. So remember to bring all those items you are no longer using and earn some extra money; but bring your wallet to buy those items you've been looking for. There will be many non-members at this open house, so let's all show how PACE can help them. Please remember to bring your systems to show your favorite software to those of us that may not have seen it yet. All ST users, we definitely need your system! Please bring them so we can demo the MIDI-MAZE game plus all the other good things the ST can do. Don't miss this meeting. It should be a good time for all.

On December 28, 1987 our Christmas dinner will be held. Maybe a few surprises will be in store for those of you who attend. Get your reservations in early to John Satriano. This is being held at Bull Shots with a great selection of dinners with good food. See the details on a special page in this newsletter. Hope to see you there.

The March Atari Computer Product Show is well under way! The invitations were sent out November 12. On November 18 I was receiving phone calls from Maryland and North Carolina reserving booths. This show will dispel the long cold winter months that we've been through by bringing the spring sunshine to your lives with all the excitement that will be had at the show. With Christmas in mind, this show will be like sugar plums dancing in your dreams until March. Mark your calendar to hold this date open (March 19 and 20, 1988). This will be one show you

won't want to miss.

At this Christmas time, I would like to extend sincere good wishes to you and your family, and hope that good health and prosperity are yours throughout the new year.

We, the PACE board, have warmly appreciated your friendship and will always strive to deserve your trust and confidence.

A Merry Christmas to all, and to all a good night.

P.S. I would like to remind you...please bring your systems to the December 14th Open House.



BOARD CHECK

by John Babson

The most recent news with respect to the Bulletin Board is that P.A.C.E. has acquired a new 50 Meg hard drive from ICD to add to the 20 Meg Supra Drive we already have giving us a total of 70 Meg (70 Million Bytes) of on line storage capacity. This means that we now have more room for downloads and uploads. As a result of our attending the various Atari shows we have many new programs from other user groups and I will be trying to get the best of these on the BBS as quickly as possible. If you are on other bulletin boards and find interesting files, messages or articles, upload them to our BBS so the other members can enjoy them and hopefully not have to also pay Genie or CompuServe for the same program you got.

P.A.C.E. attended the Atari Show in West Palm Beach which was sponsored by the Atari Computer Club of the Palm Beaches. This may have been the last of the Atari sponsored "Fests" since Atari remains uncommitted as to its plans for 1988. The Show in Palm Beach had under 1000 attendees, I would guess, for the two days. Since this show followed on the heels of the Fairfax, VA. show where possibly over 3000 people attended, some vendors were perhaps expecting larger attendance. In addition to Atari, the following vendors were at the W. Palm Beach show: Atari Explorer, Word Perfect, Michtron, Data Pacific, Seymour-Radix, ICD, L. C. Technologies, Computer Spectrum, Avant Garde (PC Ditto), Interlink ST, Astra Systems, Virtusonics, Practival Solutions, The Computer Room, Carina Software System, QMI, Atari Journal and Soft Legio. Analog and Concept Development were expected but didn't show.

machine---and it must meet my needs. That's time I would like to cover my five of the criteria "great" software must meet to make my top ten list.

Highlights of the show:

LC Technologies was showing their new improved stereotek stereoscopic 3D glasses. This is fascinating technology that is looking for a market. The quality of the 3D effect is significantly improved over previous prototypes but the glasses are rather expensive and still lack good software to use with them.

Computer Spectrum has some new products for the ST and for the 8-bits. They are books and programs that show you how to build scientific projects using your computer. They gave us a copy of their programs and we will demo them at one of our upcoming meetings and then raffle off the programs at a meeting. This looked like an impressive educational product that would be great for the tinkerer.

Virtusonics finally showed up at a show (and stayed for all of it). If you will recall this company came to P.A.C.E. about 3 years ago and demonstrated a music/Midi product at one of our meetings that never made it to market. They now have a new product that has made it to market and they seemed pleased with its acceptance. They will be at the P.A.C.E. show in March and the program is better seen than explained.

ICD had excellent hardware for the ST and 8-bits. Their understanding of hard drives was impressive and they gave P.A.C.E. a special deal on a 50 Meg drive at the show.

Data Pacific was showing the Translator One that turns an Atari drive into a Macintosh drive along with the Magic Sac software and hardware. They now have a complete package for a Macintosh clone and totally compatible.

Practical Solutions had a Monitor Master switchbox for the ST for switching monitors that they had for sale and delivery at the show.

Jim Woodward and Ken White worked very hard to make the show a success and it was. The support for the vendors was excellent with many club members available to help during the show.

[illegible]

BUSINESS CORNER

by Bob Morgan

Last time we listed the five most important things I look for in software evaluation: It must be easy to use---it must be easy to use---it must be easy to use---it should be written for the

The sixth test is, it must be expandable. When I purchase a software package for use in my business I want one that I can easily use today, but that has some reserve options I can access and use as I get more proficient. I find myself reviewing well-written manuals about once a month. This not only reinforces my knowledge of how to use the product, but also teaches me new techniques that I missed the first time or that I had skipped over because all I wanted to do was get up and running. A good general ledger package might serve as a good case in point.

In a general ledger, the first objective is to get financial information in and income statements and balance sheets out. Usually a general journal entry function will permit entry of compiled data.

Later, I can use the cash disbursement, the automatic monthly expenses options, check writing features, and much more. I don't have to use it at first, but I can call upon it as I become better at using the package.

Test seven - can I integrate it with other software? This certainly is a feature I look for, but it is not an absolute mu. When I have produced a great deal of data in my data base I would like to be able to easily move it to my spreadsheet for more detailed analysis, and finally, move the entire product to my word processor for a sophisticated report.

Next, I look for copy protection. I don't want to make copies and give to my friends. Owning a business where I make a living selling, I realize this is stealing and can't believe anyone would condone me coming into their place of employment and giving away whatever they do to make a living -- but that's a moral issue you must decide yourself. But, if I pay a large sum of money for the right to use software, I don't want to be working on it at home one Sunday and find that my dog chewed up my only "copy protected" version of the software! I want the right and responsibility to have non copy protected software. Have you ever had to copy "protected" software to a hard disk?

Number nine is safety features. Business software, especially, should automatically make backup copies of my documents or should at least warn me that I should backup my files before quitting. I have an accounting package that won't let me quit without warning me twice to backup. My word processor and data base automatic. My make a backup of my files. For anyone who has lost major amounts of data due to careless backup procedures, this will be closer to number one on their list.

WORD PROCESSING If I were looking for a good program in this field, what is available? There is STWriter ver. 2.3.

First Word Plus, Word Writer ver. 2.0, Regent Word II, Text Pro, Word Perfect and Final Word. This listing is not complete, but this is a listing of some of the most popular programs that range in cost from free to expensive. The one I use is Word Writer and I have been happy with it. I will be doing a review of Regent Word II and maybe Word Perfect in future issues. The most important thing to do when looking for a word processor, or any software for that matter, is to examine your needs. Will this program work with your present equipment? What will the initial program and subsequent updates cost? How understandable is the manual? Last, but not least, will you get support from the manufacturer if you have major questions?

DESKTOP PUBLISHING This is a new field that has just come about in the last couple of years. There are good programs in this area. Publishing Partner is the most popular, with Fleet Street Publisher, Easy Draw, Graphic Artist, Typesetter ST and Desktop Publisher soon to be released. Something else interesting is the Image Scanner that will work with these programs---more on that in April.

GRAPHICS There are so many graphic programs---painting, cad (2-D, 3-D, etc.), animation, digitizer, clip art, fonts, graphic tablets, cards-certificates, scanners and utilities. Some of the well known paint programs are Degas Elite, Paintwork, NeoChrome, ST PaintPro, and a brand new one called Spectrum 512. In the field of CAD (computer aided design) the software for the ST line is increasing with 1st Cadd, Cad 3-D, M-Cadd, Athena II, GFA-Draft and PC Board Designer, etc.. After you complete your masterpiece, how about animation? Well, for animation you have Make It Move, Aegis Animator ST, and Cyber Control (which only works with Cad 3-D ver. 2.02).

BUSINESS SOFTWARE Business software for the ST covers accounting, inventory, payroll, point of sales, and vertical needs. In the area of accounting there are receivable, payable, general ledgers, purchases, orders, and invoice masters. How about Inventory Master, Inventory Manager, and Inventory-Pro for your business, and for your payroll, Payroll Master or DAC-Easy Payroll?

TELECOMMUNICATION With the larger number of local BBS's and lower cost of 300, 1200 and 2400 baud modems, along with some lower costs on mainframe databases. Telecommunication by computer has grown. Some of the programs available are PC/Intercom, Flash, ANSiTerm, ST-Talk, Mi-Term and 220-ST. There are approximately 6 BBS programs out on the market in case you are a budding sysop.

EDUCATION In this field there are lessons in geography, language, math, pre-school, religion, science, typing, vocabulary, and for those who want to be doctors, medical software.

MUSIC Like other fields for the ST, this area is starting to really take off due to some of the excellent midi software and the interfacing of synthesizer and computers...and with companies like Hybrid Arts (tm), Dr. T's (tm) Music, Passport (tm), Sonus (tm), and Michtron (tm). With the support of trade magazines like Keyboard, more musicians are supplementing their keyboards with computers.

ENTERTAINMENT Well, if you are looking for adventures, arcade, board, cards, fantasy, gambling, simulation, sports, strategy, and trivia you have come to the right place. If I were to start writing about games, the good and bad are all open to personal taste. There are some good games, but there are some turkeys.

What I have tried to do is give you the tip of the iceberg -- by no means have I touched or seen all 800 programs for our computer. I did not discuss spreadsheets, utilities, emulators, operating systems, languages, databases, mailing merge, personal finances, statistics, and books. But maybe what I have done is to spark your interest in trying some new software on your computer.

<<<<<<<<>>>>>>>>>>

ARCX HELP

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To sign up for GENie service, call (with modem) 800-638-8369. Upon connection type HHH (no RETURN after that). Wait for the U#+ prompt. Type XJM11877, GENie and hit RETURN. The system will prompt you for your information.

HELP FOR USING ARCX v1.2 <file #1908>

This is a short "How to..." on the use of ARCX version 1.2 as found in the GENie 8 bit Atari RoundTable. This file is broken into two parts:

- ```
1> loading ARCX
2> running ARCX
```

Since there are few differences in ARCX v1.1 and ARCX v1.2, we will refer only to ARCX. It is strongly recommended that you



wnload ARCX v1.2 as it is about 30% faster than v1.1 and will therefore save you some time off line when recovering files.

ARCX is the program that you will need to be able to recover and use all of the files in the Atari RoundTable that are stored in the ARC format. See the file ARC.HLP for more info on the creation of an ARC'd file.

#### LOADING ARCX

To load ARCX, place a disk with your DOS file(s) on it in D1: and turn on the computer. BE SURE TO HAVE ALL CARTRIDGES REMOVED AND ON XL/XE MACHINES, HOLD DOWN THE "OPTION" KEY TO TURN OFF BASIC. ARCX is known to work with Atari DOS 2.0 and 2.5, SpartaDOS (all versions), and MYDOS 4.0 and up. ARCX **\*\*WILL NOT\*\*** work with SMARTDOS.

Once to the DOS menu, you may set up your RAMdisk, copy files to the RAMdisk, etc.. It is recommended that you have a freshly formatted disk ready to receive the recovered files, so you might also want to format a disk now.

Now place the disk with the file ARCX.COM on it in the drive and do a binary load of the file. From Atari DOS, this is option 'L' and the file name to load is ARCX.COM. From SpartaDOS just type ARCX <RETURN>. ARCX will load into the computer and be ready to run.

#### RUNNING ARCX

The first line of the ARCX menu will prompt you for a file name. If the file to be an ARC'd has the extender of .ARC (as it should), you need only type in the file name and not the extender. (i.e. to recover TEST.ARC, you need only type TEST) If the file to be recovered is in any drive other than D1:, you will need to give the device as part of the file name. (i.e. from a RAMdisk as D8, you would type D8:TEST) You may also see a directory of a disk by pressing the '+' key.

#### NOTE:

ARCX does not allow the use of wild cards, so you must enter the complete file name. Once you enter the file name to be recovered and hit <RETURN>, ARCX will ask for a destination drive. This is just a number from 1 to 8. There must be an active drive that is ready to receive the recovered file(s). If you want to send the recovered file(s) to D2: put your formatted disk in D2:, and press '2'.

The last option that you will see is -- you want the screen turned off or not while ARCX is working. Pressing the 'N' key leaves the screen on and pressing 'Y' turns it off.

Unless you are just curious, it is recommended that you turn the screen off <answer 'Y'> because ARCX is about 25-30% faster with the screen off than with it on. Once you press the 'Y' or 'N' key, ARCX will proceed to read the source file and write to the destination drive.

#### POSSIBLE PROBLEMS:

At the very start of the ARCX process, you may get several different I/O errors. I have found that most of these are because of the failure to give a valid file name. If this happens, make sure that you have given the COMPLETE file name with NO wildcards. As a matter of habit, I also enter the .ARC extender as part of the file name. Also make sure that the destination disk is freshly formatted and is not write protected.

If ARCX fails to do anything when you load it, MAKE SURE THAT BASIC IS OFF/REMOVED. ARCX will lock up if BASIC is on.

While ARCX is working, you may sometimes hear a high pitched beep. If the screen is on, you will also see the note "filename.ext Fails CRC Check". This means that ARCX has encountered a file in the ARC'd file that for some reason does not match the original source file. This DOES NOT mean that the file is bad! This often happens on text files and is due to the block padding that most Xmodem file transfer systems do. If you get a CRC error, try to run the recovered programs. Odds are, they will probably run with no problems. If you do find that they will not run, use ARCX to recover the \*.ARC file again and see if the error occurs again. If you have more problems, please leave E-Mail to one of the Atari RT SysOps with the file name/number, and a full description of the problem.

You may get a disk full error if you are using only one drive. ARCX supports the use of a RAMdisk and it is recommended that you use the RAMdisk if you can. If you have only one drive and no RAMdisk, you will be limited as to the size of the file that you can recover since both the source \*.ARC file and the recovered file(s) must all fit on the same disk. As a rough guess, the \*.ARC file should take up no more than 30% of the total disk space.

Many people have left me mail saying that ARCX has "Locked up" when in reality, it was doing just what it should be. This apparent lock up is because ARCX is fairly slow and does little disk access, so not much seems to be going on. As a rule of thumb, allow ARCX 1 minute for every 5K of \*.ARC file size. (5K=40 SD sectors=20 DD sectors) This way, you won't be expecting ARCX to just zip right through.

Hopefully, this will answer many of your questions about how to use ARCX to



... Marty... MARTY.A

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reading. The "C PRIMER PLUS" by The Wile  
Group, marketed by Howard Sams Books is a  
much easier book to follow. It was written  
by college instructors who kept their  
students' blank expressions in mind.

Is LIGHTSPEED C worth your hard-earned cash? Well, it's compatible with SpartaDOS, supports RAMDISKS of all persuasions, includes RUNTIME packages for itself, Action!, and MAC/65, and comes with a command line disk operating system of its own: Lightspeed DOS. The author, Ralph Walden is an avid Atari supporter and is widely accessible on GENIE. By the way, the ARC and ARCX implementations for the ST and 8 bit Ataris were done by Ralph using LIGHTSPEED C on an 8 bit machine!

[illegible]

## TECHNICAL ADVICE

Do your program and hardware manuals leave you feeling like you can't read English???

Does your disk drive seem at times to run backwards???

Does it seem that you k now nothing about using an Atari computer???

If you have ever faced any or all of these problems, you probably realize what a relief it was to call up someone knowledgeable for help and advice. Users' groups like P.A.C.E. can be a real help to the average computer owner. We are fortunate to have several very competent people as members. Four of our members have volunteered to be available for technical advice.

You can call one of the following when you feel you are having a problem with your Atari system:

Mark Spires.....(412) 335-4477

**Paul Rude..... (412) 898-1931**

Dave Farbacher.....(412) 963-8600

Jack Liebmann.....(412) 521-0903

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**PRESS RELEASE**

## OVERVIEW OF COMDEX 1987 ATARI BOOTH

First uploaded to GENie 11/2/87

**CONNECTIVITY--SOLUTIONS, AND TECHNOLOGY:  
ATARI ANNOUNCES NEW PRODUCTS AT COMDEX**

(Las Vegas, NV -- Comdex Fall 87) In a series of major product introductions, Atari Corporation emerges as a maker of a complete line of high-performance, low-cost solutions for the business world.

(continued on page 9)

Ralph Walden, author of ACE-C, DUC/65, and "LIGHTSPEED C" was reportedly less than thrilled with the name under which his program development system was marketed. There exists for the Apple MacIntosh computer a C implementation called LIGHTSPEED C which, although considered state-of-the-art, compiles and links just a bit slower than Ralph's implementation. The full name of the Atari 8-bit implementation is, therefore: Faster Than LIGHTSPEED C.

Historically speaking, C has been around since the 1970's and was used to create much of the UNIX operating system. Although described by detractors as a "language consisting mostly of punctuation marks", the C language is quite powerful and highly portable.

LIGHTSPEED C (LSC for short) is a compiled language. This means that C source code, typed in via an editor (CEDIT.COM), must be processed through a compiler (CC.COM) and assembled by a linker (LINK.COM) to generate an executable file.

Although not as fast as assembly language or Action!, LIGHTSPEED C has other redeeming qualities. The function library contains many useful routines which vastly reduce the level of machine-specific knowledge needed to accomplish common operations. LSC's strength lies in I/O management and redirection. Disk operations are fully supported with easily called functions, as are Atari graphics, including player-missile manipulations. One caveat, not all of the standard C features (sizeof, structures, unions) are implemented in LSC; however, this may be a problem only if you intend to port your program over to another, non-Atari 8 bit system.

The LSC editor, CEDIT, is very user-friendly and features predefined macro keys to speed up key entry. Of particular value is the (U)nmatch capability which checks for unmatched braces.

The LIGHTSPEED C manual is not a C tutorial and contains very little (if any) programming instruction. The author recommends that novices purchase "THE C PROGRAMMING LANGUAGE" by Brian Kernighan and Dennis Ritchie. Although this book is the definitive C handbook, it makes for dry



# Getting ready for the **★holidays**

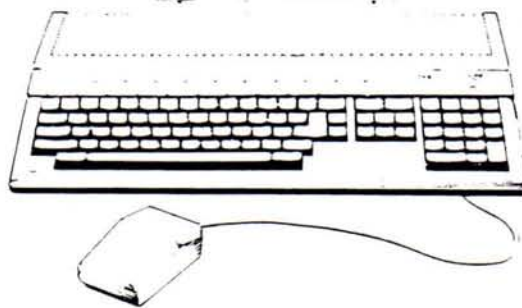
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ST Writer KEY CODE TABLE

| KEY       | Normal | Shift | Control | Shift + Control | Normal | Shift | Control | Shift + Control |
|-----------|--------|-------|---------|-----------------|--------|-------|---------|-----------------|
| Return    | ^C     | ^C    | ^J      | ^J              | ^C     | ^C    | ^J      | ^J              |
| Space Bar | Sp     | Sp    |         |                 | Sp     |       |         |                 |
| 1 !       | 1      | !     | ^Q      | ^Q              | 1      | !     | 2       | 2               |
| 2 @       | 2      | @     |         |                 | 2      | @     | 3       | 3               |
| 3 #       | 3      | #     | ^S      | ^C              | 3      | #     | 4       | 4               |
| 4 \$      | 4      | \$    | ^T      | ^D              | 4      | \$    | 5       | 5               |
| 5 %       | 5      | %     | ^U      | ^E              | 5      | %     | 6       | 6               |
| 6 ^       | 6      | ^     | ^V      | ^F              | 6      | ^     | 7       | 7               |
| 7 &       | 7      | &     | ^W      | ^G              | 7      | &     | 8       | 8               |
| 8 *       | 8      | *     | ^X      | ^H              | 8      | *     | 9       | 9               |
| 9 (       | 9      | (     | ^Y      | ^I              | 9      | (     | 0       | 0               |
| 0 )       | 0      | )     | ^P      | ^J              | 0      | )     | 1       | 1               |
| - =       | -      | =     | ^O      | ^K              | -      | =     | 2       | 2               |
| \ /       | \      | /     | ^N      | ^L              | \      | /     | 3       | 3               |
| [ (       | [      | (     | ^Up     | ^Up             | [      | (     | 4       | 4               |
| ] )       | ]      | )     | ^_      | ^_              | ]      | )     | 5       | 5               |
| ; :       | ;      | :     | ^Up     | ^Z              | ;      | :     | 6       | 6               |
| ' "       | '      | "     | ^G      | ^B              | '      | "     | 7       | 7               |
| , <       | ,      | <     | ^L      | ^Dn             | ,      | <     | 8       | 8               |
| . >       | .      | >     | ^M      | ^S              | .      | >     | 9       | 9               |
| / ?       | /      | ?     | ^O      | ^?              | /      | ?     | 0       | 0               |
| \         | \      |       | ^Dn     | ^Dn             | \      |       | 1       | 1               |
| A         | a      | A     |         |                 | A      |       | 2       | 2               |
| B         | b      | B     | ^B      | ^B              | B      |       | 3       | 3               |
| C         | c      | C     | ^C      | ^C              | C      |       | 4       | 4               |
| D         | d      | D     | ^D      | ^D              | D      |       | 5       | 5               |
| E         | e      | E     | ^E      | ^E              | E      |       | 6       | 6               |
| F         | f      | F     | ^F      | ^F              | F      |       | 7       | 7               |

ST Writer KEY CODE TABLE

| KEY      | Normal | Shift | Control | Shift + Control | Normal | Shift | Control | Shift + Control |
|----------|--------|-------|---------|-----------------|--------|-------|---------|-----------------|
| G        | g      | G     | ^G      | ^G              | T      | t     | ^T      | ^T              |
| H        | h      | H     | ^H      | ^H              | U      | u     | ^U      | ^U              |
| I        | i      | I     | ^I      | ^I              | V      | v     | ^V      | ^V              |
| J        | j      | J     | ^J      | ^J              | W      | w     | ^W      | ^W              |
| K        | k      | K     | ^K      | ^K              | X      | x     | ^X      | ^X              |
| L        | l      | L     | ^L      | ^L              | Y      | y     | ^Y      | ^Y              |
| M        | m      | M     | ^M      | ^M              | Z      | z     |         |                 |
| N        | n      | N     | ^N      | ^N              |        |       |         |                 |
| O        | o      | O     | ^O      | ^O              |        |       |         |                 |
| P        | p      | P     | ^P      | ^P              |        |       |         |                 |
| Q        | q      | Q     | ^Q      | ^Q              |        |       |         |                 |
| R        | r      | R     | ^R      | ^R              |        |       |         |                 |
| S        | s      | S     | ^S      | ^S              |        |       |         |                 |
| T        | t      | T     | ^T      | ^T              |        |       |         |                 |
| U        | u      | U     | ^U      | ^U              |        |       |         |                 |
| V        | v      | V     | ^V      | ^V              |        |       |         |                 |
| W        | w      | W     | ^W      | ^W              |        |       |         |                 |
| X        | x      | X     | ^X      | ^X              |        |       |         |                 |
| Y        | y      | Y     | ^Y      | ^Y              |        |       |         |                 |
| Z        | z      | Z     |         |                 |        |       |         |                 |
| Insert   |        |       |         | ^P              |        |       |         |                 |
| Clr Home |        | 7     |         | ^X              |        |       |         |                 |
| Up Arrow |        |       |         | ^_              |        |       |         |                 |
| F3       |        | ^_    |         | ^_              |        |       | Rt      | ^_              |
| F5       |        | ^U    |         | ^U              |        |       |         |                 |
| F9       | ^?     | ^S    | ^?      | ^S              | ^?     | ^S    | ^?      | ^S              |
| F10      | ^Dn    | ^Up   | ^Dn     | ^Up             | ^Dn    | ^Up   | ^Dn     | ^Up             |
| Keypad * | *      | *     | ^       | ^               | *      | *     | ^       | ^               |
| Keypad - | -      | -     | -       | -               | -      | -     | -       | -               |



In this often ho-hum world of computers where MS-DOS is the only language spoken and where excitement is defined as a new clock speed or a box that has a slightly different shade of beige, occasionally something happens to reaffirm my faith in the diversity of man. Such an event took place the first weekend in April. It was a beautiful spring day as I drove up to the front doors of the Hotel Intercontinental in San Diego. I was there to learn something new and exciting in the field of Obstetrics, and as I entered the lobby, the doorman's white-gloved hand opened 3/4 inch thick solid glass doors. This beautiful new hotel is located on the bay in San Diego; the basic room rate starts at \$130 a night! There, clearly visible from across the lobby, was a 25 inch color monitor displaying the entire day's conference schedule in a beautifully scrolling text display. I was struck instantly by it. It was pale blue on dark blue, 20 columns by 12 rows in easily readable blocky letters 6 by









**MORGAN'S COMPUTER  
& EDUCATION CENTER**

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(412) 653-6150

**Now Accepting deposits on Atari  
Laser Printers to ship early  
December, \$1999.00**

**Morgan's Computer & Education Center will be mailing their next Atari ST newsletter before Thanksgiving. If you do not receive this free newsletter, please call 653-6150 to get your name added to the mailing list.**

**Our Small Business Seminar will be offered again in January. If you own a small business, or know someone that does and would like to see how the ST can be used to run a small business call 653-6150 to receive more information on times and places.**

**New arrivals and expected arrivals soon:**

- **Word Perfect--its great!**
- **Microsoft Write--yep, we have them on order!**
- **IB Drives both 40 & 80 track for PC Ditto**



Reprinted from Phoenix, Dec., 1987

The first Erasable Optical Drive system that uses removeable media has been released by the SHARP CORPORATION. It is reported to be the first time that such a system has been offered to general users. The Sharp system optical disk life is estimated at about ten years and can hold 640 Megabytes of data.

It apparently can withstand more than one million write/erase cycles. The product is expected to be available in November at a price of one million yen, which is about \$7,150 at the current exchange rates. For your information, the price per 1K bytes of storage works out to be \$0.0109, or about one cent!!

<<<<<<<<<>>>>>>>>>>



Personally,  
I would NEVER miss  
the big P.A.C.E.  
OPEN HOUSE  
at the  
Green Tree Marriott  
December 14, 1987



HAH! She thinks she's  
so smart! She didn't  
even mention the  
P.A.C.E.  
CHRISTMAS DINNER  
at Bullshots  
December 28, 1987



HMMMPF !!  
I'm going to BOTH !!

## P.A.C.E. HOLIDAY DINNER

December 28, 1987 BULLSHOTS RESTAURANT 7:00 P.M.

Yes we will attend \_\_\_\_\_ Number in Party \_\_\_\_\_ Phone # \_\_\_\_\_  
(Name)

### DINNER SELECTION

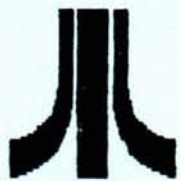
- \_\_\_ 26 OZ. Strip Steak \$8.95
- \_\_\_ 12 oz. Black Angus Strip Steak \$10.95
- \_\_\_ Pork Chops 2 loin cut chops \$7.95
- \_\_\_ Stuffed Flounder oven baked with crabmeat stuffing \$7.95
- \_\_\_ 8 Breaded Deep Fried Shrimp \$7.95

All dinner entrees include house salad, Potatoe & loaf of bread.

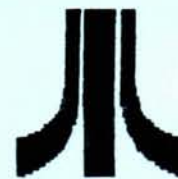
PLEASE RETURN THIS FORM NO LATER THAN DECEMBER 15 TO:

JOHN SATRIANO  
969 EDNA STREET  
BRIDGEVILLE PA. 15017





# P.A.C.E.



(Pittsburgh Atari Computer Enthusiasts)

PRESENTS

Combined 8-Bit and ST Sig

# OPEN HOUSE

December 14, 1987

Greentree Marriott

7:00 p.m.

**BIG MIDI-MAZE COMPETITION!!** (Bring your favorite joystick)

**MIDI MUSIC DEMO**

**MANY DEMOS FOR 8-BIT AND ST**

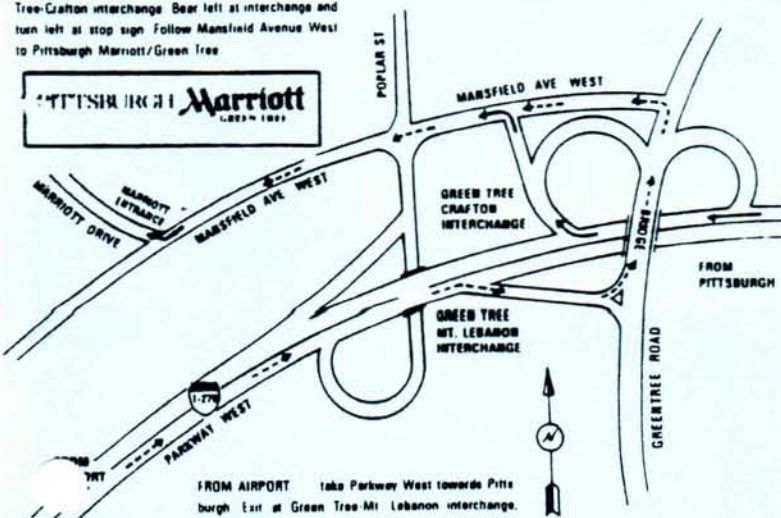
**CHINESE AUCTION!**

Don't miss this big event! Come and bring your family and friends!  
Be amazed! Be entertained! Find a bargain at the Chinese Auction!

**ADMISSION FREE**



FROM PITTSBURGH take Parkway West to Green Tree-Crafton interchange. Bear left at interchange and turn left at stop sign. Follow Mansfield Avenue West to Pittsburgh Marriott/Green Tree.



FROM AIRPORT take Parkway West towards Pittsburgh Exit at Green Tree Mt. Lebanon interchange, turn left onto Greentree Road. Make left at Mansfield Avenue West. Follow Mansfield Avenue West to Pittsburgh Marriott/Green Tree.

**FROM WEST VIRGINIA I-70 EAST:**

Exit I-79 North. Take Pittsburgh Exit I-279 East to Exit ramp Greentree - Mt. Lebanon. Turn left on Greentree Road. Follow Marriott Drive signs to Inn.

**FROM ERIE, BUFFALO AND NORTH:**

I-79 South across Glenfield Bridge (Neville Island) to I-279 Pittsburgh Exit. Exit Greentree-Mt. Lebanon ramp. Turn left on Greentree Road and follow Marriott Drive signs to Inn.

**FROM CLEVELAND, AKRON, YOUNGSTOWN AND WEST:**

Ohio Turnpike I-80 to Pennsylvania Turnpike I-76, off at Warrendale Exit 3, then take I-79 South, across Glenfield Bridge (Neville Island) to I-279 Pittsburgh Exit. Exit Greentree-Mt. Lebanon ramp. Turn left on Greentree Road and follow Marriott Drive signs to Inn.

**PITTSBURGH Marriott**  
GREEN TREE



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